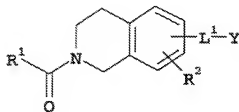


CLAIMS

What is claimed is:

- (currently amended) A compound of formula (I):-



(I)

wherein:-

R¹ represents optionally substituted aryl, optionally substituted heteroaryl, R³NH-Ar¹-L²- or R³-NH-C(=O)-NH-Ar²-L³;

R² represents hydrogen, halogen, C₁₋₄alkyl or C₁₋₄alkoxy;

R³ represents optionally substituted aryl or optionally substituted heteroaryl;

R⁴ is alkyl, aryl, cycloalkyl, heteroaryl or heterocycloalkyl, or alkyl substituted by aryl, an acidic functional group, cycloalkyl, heteroaryl, heterocycloalkyl, S(O)_mR⁵, C(=O)-N³X⁴, or N³X⁴;

R⁵ represents alkyl, alkenyl, alkynyl, aryl, arylalkyl, arylalkenyl, arylalkynyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, cycloalkylalkynyl, cycloalkenyl, cycloalkenylalkyl, heteroaryl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, heterocycloalkyl or heterocycloalkylalkyl;

R⁶ is hydrogen, alkyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroarylalkyl, heterocycloalkyl or heterocycloalkylalkyl;

R⁷ is hydrogen, R⁸, or alkyl substituted with alkoxy, cycloalkyl, hydroxy, mercapto, alkylthio or -N³X⁴;

R⁸ is hydrogen or C₁₋₄alkyl;

R⁹ and R¹⁰ are each independently selected from hydrogen or a group consisting of amino acid side chains, an acidic functional group, R⁵, C(=O)-R⁵, or C(=O)-N³X⁴, or alkyl substituted by an acidic

Reply to Office Action of July 28, 2006

functional group or by R^5 , NY^3Y^4 , NH , $C(=O)$, R^5 , $C(=O)$, R^{12} , NH_2 , $C(=O)$, Ar^2 , NH_2 , $C(=O)$, R^{12} , $C(=O)$, H or $C(=O)$, NY^3Y^4 ;

or R^7 and R^9 together with the atoms to which they attached form a 3- to 6-membered heterocycloalkyl ring;

R^{10} represents C_{1-6} alkyne, optionally substituted by R^4 ;

R^{12} is an alkylene chain, an alkenylene chain, or an alkynylene chain;

R^{13} is alkyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroarylalkyl, heterocycloalkyl or heterocycloalkylalkyl;

Ar^1 represents a saturated, partially-saturated or fully unsaturated 8- to 10-membered bicyclic ring system containing at least one heteroatom selected from O, S or N, optionally substituted by one or more aryl group substituents;

Ar^2 represents arylidyl or heteroaryldiyl;

L^1 represents _____

(i) _____ an alkenylene, alkylene or alkynylene linkage each optionally substituted by (a) carboxy, hydroxy, mercapto, cyano, oxo, $S(O)_m R^4$, R^5 , $C(=O)$, R^5 , $C(=O)$, OR^5 , $N(R^6)$, $C(=O)$, R^4 ,

$N(R^6)$, $C(=O)$, OR^4 , $N(R^6)$, SO_2 , R^4 , NY^3Y^4 or $\{C(=O)N(R^7)C(R^8)(R^9)\}_p$, $C(=O)$, NY^3Y^4 , or by

(b) alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl, $S(O)_m R^4$, $C(=O)$, NY^3Y^4 or NY^3Y^4 ;

(ii) _____ a $\{C(=O)N(R^7)C(R^8)(R^9)\}_p$ linkage;

(iii) _____ a Z^1-R^{10} linkage;

(iv) _____ a $R^{10}-Z^1-R^{10}$ linkage;

(v) _____ a $C(R^8)(R^{11})\{C(=O)N(R^7)C(R^8)(R^9)\}_p$ linkage; or

(vi) _____ a $L^3-L^4-L^5$ linkage;

L^2 represents an alkylene chain;

L^3 and L^5 each independently represent a direct bond or an alkylene chain;

L^4 represents a cycloalkylene or heterocycloalkylene linkage;

X^1 and Y^2 are independently hydrogen, alkanyl, alkyl, aryl, arylalkyl, cycloalkyl, heterocaryl or heterocarylalkyl; or the group $-N(X^1)Y^2$ may form a cyclic amine;

Y^3 and Y^4 are independently hydrogen, alkanyl, alkyl, alkynyl, aryl, cycloalkenyl, cycloalkyl, heterocaryl, heterocycloalkyl, or alkyl substituted by alkoxy, aryl, cyano, cycloalkyl, heterocaryl, heterocycloalkyl, hydroxy, oxo, $-N(X^1)Y^2$, or one or more $-CO_2R^6$ or $-C(=O)-N(X^1)Y^2$ groups; or the group $-N(X^3)Y^4$ may form a 5- to 7-membered cyclic amine which (i) may be optionally substituted with one or more substituents selected from the group consisting of alkoxy, carbamido, carboxy, hydroxy, oxo for a 5-, 6- or 7-membered cyclic acetal derivative thereof; and (ii) may also contain a further heteroatom selected from O, S, SO_2 , or $N(X^5)$; and (iii) may also be fused to additional aryl, heterocaryl, heterocycloalkyl or cycloalkyl rings to form a bicyclic or tricyclic ring system;

X^5 is hydrogen, alkyl, aryl, arylalkyl, $-C(=O)R^{13}$, $-C(=O)OR^{13}$ or $-SO_2R^{13}$;

Z^1 is O , $Si(O)_3$, NR^8 , SO_2NR^8 , $C(=O)NR^8$ or $C(=O)$;

Y is carboxy or an acid bioisostere;

m is an integer 1 or 2;




n is zero or an integer 1 or 2; and

p is zero or an integer 1 to 4;



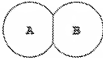

but excluding compounds where an oxygen, nitrogen or sulfur atom is attached directly to a carbon-carbon multiple bond of an alkenylene or alkynylene residue;

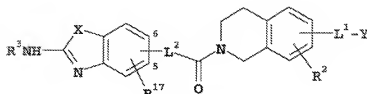
and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

2. (currently amended) A compound according to claim 1 in which R^1 represents a group R^2 , $NH-Ar^1-L^3$ in which: L^2 is a straight or branched C_{1-6} alkylene chain; and

Ar^1 is an 8- to 10-membered bicyclic system  in which (i) ring  is a 5- or 6-membered optionally substituted heterocycle, (ii) ring  is a 5- or 6-membered optionally substituted heterocycle or an optionally substituted benzene ring, and (iii) the two rings are joined together by a carbon-carbon linkage or a carbon-nitrogen linkage; and

R^3 is an optionally substituted aryl.

3. (Original) A compound according to claim 2 in which  is a 5-membered optionally substituted heterocycle, ring  is an optionally substituted benzene ring, and the two rings are joined together by a carbon-carbon linkage.
4. (Original) A compound according to claim 2 in which  is an optionally substituted benzoxazolyl or an optionally substituted benzimidazolyl, each in which the benzene ring contains the optional substituents.
5. (Original) A compound according to claim 2 in which ring  is a benzene ring optionally substituted by one of C₁₋₄ alkyl, C₁₋₄ alkoxy, amino, halogen, hydroxy, C₁₋₄ alkylthio, C₁₋₄ alkylsulfinyl, C₁₋₄ alkylsulfonyl, nitro or trifluoromethyl.
6. (Original) A compound according to claim 2 in which R³ represents a 2-substituted phenyl.
7. (Original) A compound according to claim 6 in which R³ represents 2-methylphenyl.
- 8-15. (cancelled)
16. (Original) A compound according to claim 1 of formula (Ia):-



(Ia)

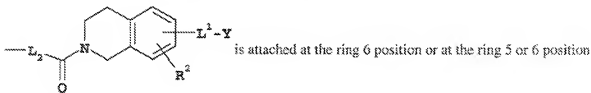
in which R^2 , R^3 , L^1 , L^2 and Y are as defined in claim 1, X is O or NR^{18} , where R^{18} is hydrogen or C_{1-4} alkyl, and R^{17} is hydrogen or an aryl group substituent, and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

17. (cancelled)

18. (Original) A compound according to claim 16 in which R^{17} represents hydrogen, halo, C_{1-4} alkyl, or C_{1-4} alkoxy.

19. (Original) A compound according to claim 16 in which L^2 represents a straight or branched C_{1-6} alkylene chain.

20. (Original) A compound according to claim 16 in which the group



when X is NR^{18} and R^{18} is C_{1-4} alkyl.

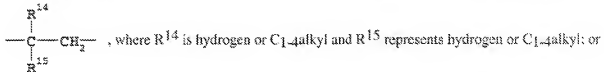
21. (Original) A compound according to claim 16 in which the group $-L^1-Y$ is attached at position 6 or 7 of the tetrahydroisoquinoline ring.

22-28. (cancelled)

29. (currently amended) A compound according to claim 1 in which L^1 represents a C_{1-6} alkylene linkage optionally substituted by C_{1-4} alkyl, aryl, or heteroaryl, NR^{61} , $C(=O)R^4$, NR^{62} , $C(=O)OR^4$, NR^{63} , SO_2R^4 , NY^3Y^4 , or $[(C(=O)N(R^7)C(R^8)(R^9))_pC(=O)NY^3Y^4]$, or alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl, $C(=O)NY^3Y^4$ or NY^3Y^4 .

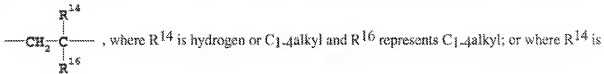
30. (Original) A compound according to claim 29 in which the C₁₋₄alkylene linkage is an ethylene linkage.

31. (currently amended) A compound according to claim 30 in which L¹ represents a group



where R¹⁴ is hydrogen and R¹⁵ represents aryl, or heteroaryl, $\text{---N(R}^6\text{)---C(=O)---R}^4$, $\text{---N(R}^6\text{)---C(=O)---OR}^4$, $\text{---N(R}^6\text{)---SO}_2\text{---R}^4$, $\text{---NY}^3\text{X}^4$, or $\text{---[C(=O)---N(R}^7\text{)---C(R}^8\text{)(R}^9\text{)]}_p\text{---C(=O)---NY}^3\text{X}^4$, or alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl, $\text{---C(=O)---NY}^3\text{X}^4$, or $\text{---NY}^3\text{X}^4$.

32. (currently amended) A compound according to claim 30 in which L¹ represents a group



hydrogen and R¹⁶ represents aryl, or, heteroaryl, $\text{---N(R}^6\text{)---C(=O)---R}^4$, $\text{---N(R}^6\text{)---C(=O)---OR}^4$, $\text{---N(R}^6\text{)---SO}_2\text{---R}^4$, $\text{---NY}^3\text{X}^4$, or $\text{---[C(=O)---N(R}^7\text{)---C(R}^8\text{)(R}^9\text{)]}_p\text{---C(=O)---NY}^3\text{X}^4$, or alkyl substituted by carboxy, hydroxy, mercapto, imidazolyl, $\text{---C(=O)---NY}^3\text{X}^4$, or $\text{---NY}^3\text{X}^4$.

33-34. (cancelled)

35. (currently amended) A compound according to claim 1 selected from:

3-(((4-methyl-2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-butanoic acid;

3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-butanoic acid,;

3-phenyl-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-propanoic acid;

3-cyclohexyl-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl)-propanoic acid;

3-(pyrid-4-yl)-3-(((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-

propanoic acid;

3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-8-yl}-but-2-enoic acid;

3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-8-yl}-butanoic acid;

3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl}-butanoic acid;

3-((3-methoxy-4-((3-methylphenyl)ureido)-phenyl)acetyl)-1,2,3,4-tetrahydro-isoquinolin-8-yl}-

butanoic acid;

2-(2,6-dichloro-benzoylamino)-3-((2-(2,6-dichloro-benzoyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl)-

propionic acid;

3-phenyl-3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl}-propanoic acid;

3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-6-yl}-butanoic acid;

3-(pyrid-4-yl)-3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl}-propanoic acid, enantiomer A;

3-(pyrid-4-yl)-3-((2-*o*-tolylamino-benzoxazol-6-yl)-acetyl)-1,2,3,4-tetrahydro-isoquinolin-7-yl}-propanoic acid, enantiomer B;

and the corresponding N-oxides and ester prodrugs thereof, and the pharmaceutically acceptable salts and solvates of such compounds, and the N-oxides and ester prodrugs thereof.

36. (Original) A pharmaceutical composition comprising an effective amount of a compound according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof, in association with a pharmaceutically acceptable carrier or excipient.

37. (Withdrawn) A method for the treatment of a human or non-human animal patient suffering from, or subject to, a condition which can be ameliorated by the administration of an inhibitor of $\alpha 4 \beta 1$ mediated cell adhesion comprising administering to said patient an effective amount of a compound according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof.

38. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, asthma comprising administering to said patient an effective amount of a compound according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof.

39. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, an inflammatory disease comprising administering to said patient an effective amount of a compound according to claim 1 or a corresponding N-oxide or ester prodrug thereof, or a pharmaceutically acceptable salt or solvate of such a compound, or an N-oxide or ester prodrug thereof.
40. (Withdrawn) A method for the treatment of a human or non-human animal patient suffering from, or subject to, a condition which can be ameliorated by the administration of an inhibitor of $\alpha 4\beta 1$ mediated cell adhesion comprising administering to said patient an effective amount of a composition according to claim 36.
41. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, asthma comprising administering to said patient an effective amount of a composition according to claim 36.
42. (Withdrawn) A method for the treatment of a patient suffering from, or subject to, an inflammatory disease comprising administering to said patient an effective amount of a composition according to claim 36.